**NEW MEXICO**
**ENVIRONMENT DEPARTMENT**

**Harold Runnels Building**
**1190 South St. Francis Drive (87505)**
**P.O. Box 5469, Santa Fe, NM 87502-5469**
**Phone (505) 827-0187 Fax (505) 827-0160**
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SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

**Certified Mail - Return Receipt Requested**

June 11, 2015

Ms. Donica Sharpe
Acting City Manager
City of Bloomfield
915 N. First Street
P.O. Box 1839
Bloomfield, NM 87413

Re: Major Municipal; SIC 4952; Compliance Evaluation Inspection; Bloomfield Wastewater Treatment Plant; NPDES Permit No. NM0020770; May 12, 2015.

Dear Ms. Sharpe:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Barbara Cooney at (505) 827-0212 or at barbara.cooney@state.nm.us.

Sincerely,
*/S/ Bruce J. Yurdin*

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Raquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN) by e-mail
Tung Nguyen, USEPA (6WQ-PP)
NMED District II, by e-mail

EPA

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

# NPDES Compliance Inspection Report

## Section A: National Data System Coding

| 1 | Transaction Code | 2 | 3 | NPDES | 11 | 12 | yr/mo/day | 17 | 18 | Inspec. Type | 19 | Inspector | 20 | Fac Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | 5 | N | NM0002077 | 0 | | 150512 | | | C | | S | | 1 |

Remarks: BLOOMFIELD WW TP MAJOR MUNICIP

| 67 | Inspection Work Days | 69 | 70 | Facility Evaluation Rating | 71 | BI | 72 | QA | 73 | 74 | 75 | Reserved | 80 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | 2 | | | N | | N | | | | MAJOR | |

## Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
City of Bloomfield WWTP – Location: 1176 Church Street- From Bernalillo take State Hwy 550 north to Bloomfield, at the intersection of SH 550 and SH 64 turn left (west) go to Church Street, Turn Left(south) travel aprox. ½ mile to the WWTP.

San Juan County, New Mexico

Entry Time /Date
10:00 Hours / May 12, 2015

Exit Time/Date
17:30 Hours/ May 12, 2015

Permit Effective Date
November 1, 2014

Permit Expiration Date
October 31, 2019

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
David Sonnenberg –Operations Superintendent (505) 632-0776, (505) 632-8475 or (505) 820-7182
Adrian Garcia – Collections Superintendent (505) 320-2050

Other Facility Data

SIC: 4952

Latitude- North 36° 43'42"
Longitude- West 107° 57'00"

Name, Address of Responsible Official/Title/Phone and Fax Number
Donica Sharpe – Acting City Manager, 505-632-6302 / Fax 505-632-6310
915 North First Street
P.O. Box 1839
Bloomfield, NM 87413

Contacted: Yes [X] No [ ]

## Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| S | Permit | S | Flow Measurement | U | Operations & Maintenance | N | CSO/SSO |
| M | Records/Reports | S | Self-Monitoring Program | S | Sludge Handling/Disposal | N | Pollution Prevention |
| U | Facility Site Review | N | Compliance Schedules | N | Pretreatment | N | Multimedia |
| M | Effluent/Receiving Waters | S | Laboratory | N | Storm Water | N | Other: |

## Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

**See Further Explanations Section of the Report For Details.**

| Name(s) and Signature(s) of Inspector(s) | Agency/Office/Telephone/Fax | Date |
|---|---|---|
| */S/ Barbara Cooney* | NMED/SWQB 505-827-0212 | *6/11/2015* |
| | | |
| **Signature of Management QA Reviewer** | **Agency/Office/Phone and Fax Numbers** | **Date** |
| */S/ Shelly Lemon* | NMED/SWQB 505-827-2795 | *6/15/2015* |

EPA Form 3560-3 (Rev. 9-94) Previous editions are obsolete.

| Bloomfield WWTP | PERMIT NO. NM0020770 |
|---|---|

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED NO*)
DETAILS:

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE | ☒ Y ☐ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES | ☐ Y ☐ N ☒ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT | ☒ Y ☐ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED | ☒ Y ☐ N ☐ NA |

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED Yes*)
DETAILS: Failure to report sewer overflow

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. | ☒ Y ☐ N ☐ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☒ S ☐ M ☐ U ☐ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING | ☒ Y ☐ N ☐ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING | ☒ Y ☐ N ☐ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☒ Y ☐ N ☐ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☒ Y ☐ N ☐ NA |
| e) DATES AND TIMES OF ANALYSES. | ☒ Y ☐ N ☐ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☒ Y ☐ N ☐ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☒ S ☐ M ☐ U ☐ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. | ☒ S ☐ M ☐ U ☐ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. | ☒Y ☐ N ☐ NA |

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES)*
DETAILS:

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. | ☐ S ☐ M ☒ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. | ☐ S ☐ M ☒ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☒ S ☐ M ☐ U ☐ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. | ☒S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☐ S ☒ M ☐ U ☐ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. | ☒ Y ☐ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. | ☒ Y ☐ N ☐ NA |

| Bloomfield WWTP | PERMIT NO. NM0020770 |
|---|---|

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

| | |
|---|---|
| 9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? | ☒ Y ☐ N ☐ NA |
| IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? | ☒ Y ☐ N ☐ NA |
| HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? | ☒ Y ☐ N ☐ NA |
| 10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? | ☐ Y ☒N ☐ NA |
| IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? | ☐ Y ☐ N ☒ NA |

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO )*.
DETAILS:

| | |
|---|---|
| 1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. | ☒ Y ☐ N ☐ NA |
| 3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. | ☒ Y ☐ N ☐ NA |
| 4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 6. SAMPLE COLLECTION PROCEDURES ADEQUATE | ☒ Y ☐ N ☐ NA |
| a) SAMPLES REFRIGERATED DURING COMPOSITING. | ☒ Y ☐ N ☐ NA |
| b) PROPER PRESERVATION TECHNIQUES USED. | ☒ Y ☐ N ☐ NA |
| c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. | ☒ Y ☐ N ☐ NA |
| 7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? | ☒ Y ☐ N ☐ NA |

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO )*
DETAILS: Not evaluated.

| | |
|---|---|
| 1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE | ☒ Y ☐ N ☐ NA |
| 2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. | ☒ Y ☐ N ☐ NA |
| 3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. | ☒ Y ☐ N ☐ NA |
| 4. CALIBRATION FREQUENCY ADEQUATE. *(DATE OF LAST CALIBRATION )* | ☒ Y ☐ N ☐ NA |
| RECORDS MAINTAINED OF CALIBRATION PROCEDURES. | ☒ Y ☐ N ☐ NA |
| CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE | ☒ Y ☐ N ☐ NA |
| 5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. | ☒ Y ☐ N ☐ NA |
| 6. HEAD MEASURED AT PROPER LOCATION. | ☒ Y ☐ N ☐ NA |
| 7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. | ☒ Y ☐ N ☐ NA |

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No )*
DETAILS: Possible disinfectant contamination of bacteria samples.

| | |
|---|---|
| 1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* | ☒ Y ☐ N ☐ NA |

| Bloomfield WWTP | PERMIT NO. NM0020770 |
|---|---|

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. Possible Contamination of Bacteria Samples with aerosol disinfectant. ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. 10 % OF THE TIME. Spike samples analyzed as part of the DMR QA study. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

| | | |
|---|---|---|
| LAB NAME | Huther & Associates | City of Farmington WWTP |
| LAB ADDRESS | Denton, TX | |
| PARAMETERS PERFORMED | Whole Effluent Toxicity Test | E. coli Bacteria |

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES ).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| 001 | None | Slight | Slight | None | None | Greenish Brown | None |
| | | | | | | | |
| | | | | | | | |

RECEIVING WATER OBSERVATIONS
See Attached Further Explanations.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES ).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. Not enough capacity in drying beds to handle solids produced ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☒ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____ (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED NO ).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

## Introduction

A Compliance Evaluation Inspection (CEI) was conducted at the City of Bloomfield Wastewater Treatment Plant (WWTP) by Ms. Barbara Cooney of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) on 12 May 2015. The inspection was conducted by NMED for the U. S. Environmental Protection Agency (USEPA), Region 6, under the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the Federal Clean Water Act. These inspections are conducted under agreement with USEPA and are used by the USEPA to determine compliance with the NPDES permit program.

This facility is a major municipal waste water treatment plant (WWTP) under the Federal Clean Water Act (CWA), section 402 National Pollutant Discharge Elimination system (NPDES) permit program and is assigned NPDES permit number NM0020770. The Standard Industrial Classification Code (SIC) is 4952. The facility discharges into the San Juan River in water quality segment 20.6.4.408 of the San Juan Basin *(State of New Mexico Standards for Interstate and Intrastate Surface Waters).* The designated uses for the segment are public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, primary contact, marginal coldwater aquatic life and warmwater aquatic life.

## Inspection Details

The inspector arrived at the Bloomfield WWTP at 10:00 hours. The inspector met with Mr. David Sonnenberg, Operations Superintendent and Mr. Alan Watts, Laboratory Analyst. The Inspector made introductions, showed her credentials and explained the purpose of her visit. Mr. Adrian Garcia, Supervisor of Collection System was also contacted. The inspector and Mr. Garcia went to two locations where recent sewer overflows had occurred. Mr. Sonnenberg then accompanied Ms. Cooney as she toured the WWTP and the laboratory. Ms. Cooney was provided at her request all records of plant and laboratory activity for the first quarter 2015 for a records review. An exit interview was held with Mr. Sonnenberg and Ms. Donica Sharpe Acting City Manager, Mr. Scott Eckstein Mayor, Mr. Garcia at City Hall following the inspection. The inspector left the city facilities at 17:30 hours.

## Treatment Scheme

The Bloomfield WWTP is designed to treat 0.9 MGD. The collection system is estimated to be 148 miles long and services a population of approximately 7800 people. The head works of the WWTP were upgraded in 2005. Influent flow is measured with Parshall flume with a staff gauge and an ultrasonic flow meter that totalizes the flow. The head works has split channels, one is to a manual bar screen, the other to the mechanical grit and solids removal system including a screw pump. The channels converge at an aerated grit chamber. The manual bar screen channel is a back up and was not being used at the time of the inspection. From the aerated grit chamber three sump pumps lift the influent water to the aeration basins. The sump pumps are run on rotation. One pump is rested at a time.

The two aeration basins are run in parallel. The square basins are above ground because of the high water table. Aeration is accomplished with surface aerators that sit approximately four feet deep in the basins. They create a great deal of turbulence at the surface of the basins. Due to the

surface location of the aerators and the square shape of the basins, aeration is not efficient and evenly distributed throughout the basins. It is likely that solids accumulate and become septic in the bottom corners of the basins. From the aeration basins, decant is sent to the two secondary round clarifiers (run in parallel), then to the square serpentine chlorine contact chamber. Dechlorination follows that process and the effluent flows through a Parshall flume with a fixed staff gauge, and an ultrasonic flow meter reads the discharge volume. This is the sampling location for the NPDES permit. The flow then goes to the San Juan River through an enclosed pipe that is approximately 1/8 mile in length.

**Sludge**

According to the operator, solids are wasted from the secondary clarifiers to an open air chamber identified as the aerobic digester / solids thickener. Decant from the digester / solids thickener is sent back to the head works where it mixes with the raw influent. From the digester / solids thickener, solids are sent to the belt press, then to the sludge drying beds. Final disposal of solids is to a surface disposal site at the Bondad landfill in Colorado. The sludge drying beds have under drains that direct liquids back to the head of the plant.

Grit removed from the head works is collected in a wheel barrow or hopper and after passing the paint filter test disposed of at the landfill.

**FURTHER EXPLANATIONS**

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

**Section A – Permit Verification – Overall Rating of "Satisfactory"**

**Section B – Record Keeping and Reporting – Overall Rating of "Marginal"**

**Permit Requirements For Record Keeping and Reporting**

The permit requires in Part III.3. D. Reporting Requirements

> *7. TWENTY-FOUR HOUR REPORTING*
> *a. The permittee shall report any noncompliance which may endanger health or the environment. Notification shall be made to the EPA at the following e-mail address: R6 NPDES Reporting@epa.gov, as soon as possible, but within 24 hours from the time the permittee becomes aware of the circumstance. Oral notification shall also be to the New Mexico Environment Department at (505) 827-0187 as soon as possible, but within 24 hours from the time the permittee becomes aware of the circumstance. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:*
> *(1) A description of the noncompliance and its cause;*
> *(2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,*

*(3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.*

**Findings For Record Keeping and Reporting:**

1. Laboratory and WWTP records for the first quarter 2015 were reviewed. No adverse findings were noted in those records.

2. The permittee failed to report a sewer overflow that occurred on April 15, 2015. A complaint call was received by NMED from residents whose properties were affected by the raw sewage backing up into the buildings and overflowing onto the ground at 1441 East Blanco Blvd.

The WWTP Supervisor was on leave at the time and no other staff members were aware that notice of the spill was required to be reported to EPA and NMED. Mr. Adrian Garcia was eventually contacted by NMED and provided follow up reports as instructed.

**Section C - Operation and Maintenance – Overall Rating of "Unsatisfactory"**

**Permit Requirements For Operation and Maintenance**

The permit requires in Part III.3. PROPER OPERATIONS AND MAINTENANCE:

*a. The permittee shall properly and maintain all facilities and systems of treatment and control (and appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operations and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*

**Findings For Operation and Maintenance:**

Numerous facility design problems were observed during this inspection. Most of these are repeat findings.

1. Sanitary Sewer Conditions – Two manholes and overflow locations were inspected, the high school stadium parking lot and 1441 East Blanco Boulevard. The collection system in these locations is only two to three feet deep and the service lines are undersized for the volume of wastewater now being carried through the system, especially in the event of any sort of blockage. According to city personnel, these lines are estimated to be more than 40 years old, some are made of clay piping. The city population and business have expanded and outgrown the existing collection system. The city does have a maintenance schedule and crews that regularly jet rod the lines.

2. Aeration Basins - The parallel aeration basins have surface aerators that mix approximately the top six feet of the chambers. The paddles cause a great deal of turbulence and frequent

splash over. Regardless of the highly turbulent surface these aerators create, the lower 2/3 of each basin does not receive adequate and reliable aeration and mixing, causing anoxic and potentially even septic conditions. **(This is a repeat finding)**

3. Secondary Clarifiers -The surface skimmer is worn and is not aligned correctly. It is pushing floating solids over the weirs and to the chlorine contact chamber. **(This is a repeat finding)**

4. Concrete cracks - This WWTP was built in 1978. New head works were built and put on line approximately 6 years ago. Throughout the WWTP there are indications of failing concrete, including cracks throughout all the treatment units including the secondary clarifiers. Inside the basins the concrete is pitted and crumbling from the many years of exposure to the caustic wastewater. Structural rebar is visible through the deteriorating treatment units. Metal parts and water works are showing signs of rusting throughout. The facility has contracted with a concrete specialist to evaluate the condition. **(This is a repeat finding)**

5. Aging treatment units and obsolete treatment units - The motors for the aeration basin paddle aerators are heavily worn, rusting and leaking oil. **(This is a repeat finding)**

6. Effluent color was slightly green - The effluent color was indicative of ineffective treatment throughout the WWTP. The color of the effluent was similar to what is commonly found in trickling filter processes. Activated sludge sewage treatment should be able to produce a much more clear effluent than was observed at this facility. **(This is a repeat finding)**

7. Chlorine Contact Chamber - Floating solids were observed in the chamber. Operators have installed a surface baffle to catch floating solids on the surface before they reach the effluent discharge point. In addition, since the last inspection, screens have been installed to catch all floating solids before leaving the treatment unit. This has improved effluent quality and has reduced the amount of visible floating solids being discharged.

8. The dechlorination solution, liquid sodium bisulfite is stored in the enclosed shed where the effluent sampling Parshall flume is located. Strong odors of the solution and extensive corrosion of all the metal piping including deterioration of the shed door suggest this storage does not provide adequate containment to protect workers and environment. This is potentially a hazardous situation for workers and this report is being sent to OSHA in New Mexico for review.

**Section D – Self Monitoring – Overall Rating of “Satisfactory”**

**Section E – Flow Measurements – Overall Rating of “Satisfactory”**

**Section F - Laboratory - Overall Rating of "Satisfactory"**

**Section G - Effluent and Receiving Water - Overall Rating "Marginal"**

**Permit Requirements For Effluent and Receiving Water**

The permit requires in Part I. Section A. Limitations and Monitoring Requirements:

*1. OUTFALL 001 - FlNAL Effluent Limits - 0.9 MGD Design Flow*
*During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated domestic wastewater from Outfall 001 to San Juan River. Such discharges shall be limited and monitored by the permittee and reported as specified below:*

| Effluent Characteristics | Lbs/day, unless noted | | | | Mg/L, unless noted | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|---|
| Pollutants | 30 Day Avg | Daily Max | 7Day Avg | | 30 Day Avg | Daily Max | 7 Day Avg | Measuring Frequency | Sample Type |
| pH | | | | | | Minimum 6.6 su | Maximum 9.0 su | 5/Week | Grab |
| Flow | | Report MGD | Report MGD | | Report MGD | NA | NA | Continuous | Totalizing Meter |
| BOD 5-day | 225 | NA | 338 | | 30 | NA | 45 | Two/Week | 24 Hour Composite |
| TSS | 225 | NA | 338 | | 30 | NA | 45 | | 24 Hour Composite |
| E. coli Bacteria | NA | 4.30 x $10^9$ (*3) | NA | | 126 cfu | 126 cfu | NA | Five/Week | Grab |
| Total Residual Chlorine | NA | NA | NA | | NA | 19 µg/l | NA | Daily | Grab |
| Total Dissolved Solids Net Increase | 22264 | NA | NA | | 400 | NA | NA | 1/Quarter | 3 Hour Composite |

*3 Conversion factor to determine loading limit is 3.79 x 107 x Flow in MGD x cfu/100 ml in effluent.

**Findings For Effluent and Receiving Water:**

Discharge is only allowed from Outfall 001 at the final effluent for the WWTP as stated above. Sewer overflows are unpermitted discharges. Two known sewer overflows occurred within the last year.

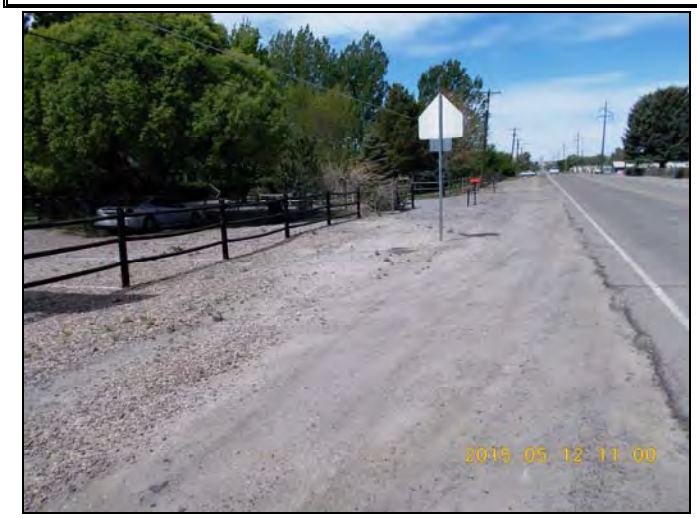
The April 15, 2015 Sewer Overflow at 1441 East Blanco Blvd., an estimated 750 gallons was reported. Sewage flowed through at least one business and one resident's property.

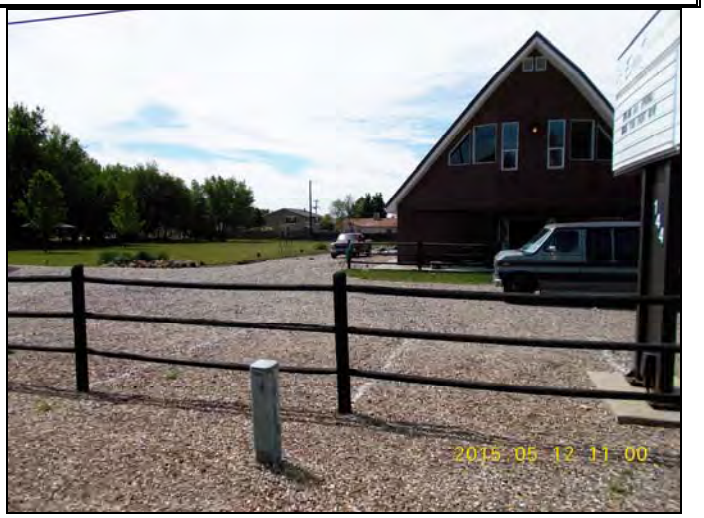
April 21, 2015 Sewer Overflow at the high school stadium parking lot, an estimated 300 gallons was reported. Some raw sewage did likely enter a storm drain that flows to the San Juan River though the exact volume is unknown.

No effluent exceedences were reported on the DMRs from Outfall 001.

**Section H - Sludge Disposal - Overall Rating of "Satisfactory"**

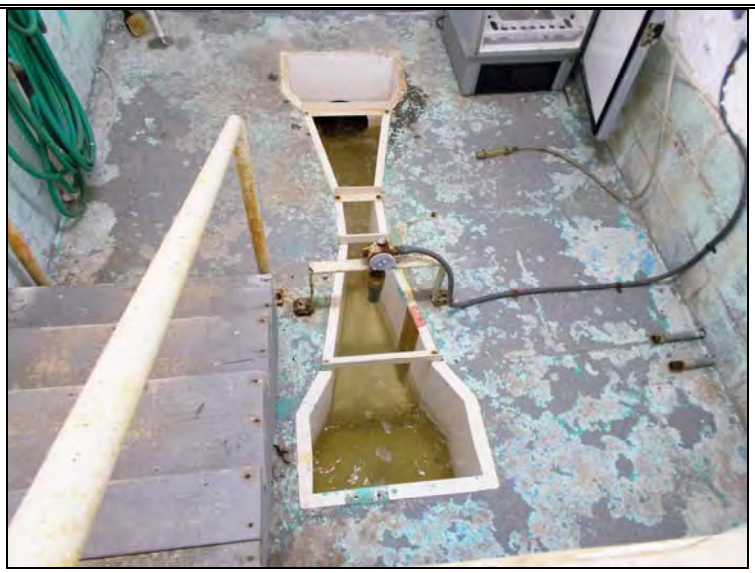
| MED/SWQB<br>Official Photograph Log<br>Photo # 1 & 2 | | |
|---|---|---|
| Photographer: B. Cooney | Date: May 12, 2015 | Time: 12:11 Hours |
| City/County: Bloomfield / San Juan County | | State: New Mexico |
| Location: Bloomfield Wastewater Treatment Plant Collection System | | |
| Subject: Location of April 15 sewer overflow, 1441 E. Blanco Blvd. and a property that was affected. The property is subgrade from the sewer line. The area was clean and free of the debris at the time of the in section. The building is under construction for repairs from sewage damage. | | |




| NMED/SWQB<br>Official Photograph Log<br>Photo # 3 | | |
|---|---|---|
| Photographer: B. Cooney | Date: May 12, 2015 | Time: 11:27 Hours |
| City/County: Bloomfield / San Juan County | | State: New Mexico |
| Location: Bloomfield Wastewater Treatment Plant | | |
| Subject: Manhole at the high school stadium parking lot. The flow level is less than 2 feet below the surface and the sewer line is at capacity. No additional flow in this part of the collection system can be reliably transported to the WWTP. Sewer rehabilitation and expansion studies are advised. | | |

| NMED/SWQB<br>Official Photograph Log<br>Photo # 4 | | |
|---|---|---|
| Photographer: B. Cooney | Date: May 12, 2015 | Time: 13:20 Hours |
| City/County: Bloomfield / San Juan County | | State: New Mexico |
| Location: Bloomfield Wastewater Treatment Plant | | |
| Subject: Effluent Parshall Flume – the effluent was free of floating solids – an improvement from the previous inspection. | | |



| NMED/SWQB<br>Official Photograph Log<br>Photo # 4 | | |
|---|---|---|
| Photographer: B. Cooney | Date: May 12, 2015 | Time: 13:23 Hours |
| City/County: Bloomfield / San Juan County | | State: New Mexico |
| Location: Bloomfield Wastewater Treatment Plant | | |
| Subject: The metal door in the building that houses the effluent Parshall flume and the dechlorination storage solution sodium bisulfite is showing signs of corrosion from the vapors. | | |

| NMED/SWQB<br>Official Photograph Log<br>Photo #5 | | |
|---|---|---|
| Photographer: B. Cooney | Date: May 12, 2015 | Time: 13:25 Hours |
| City/County: Bloomfield / San Juan County | | State: New Mexico |
| Location: Bloomfield Wastewater Treatment Plant | | |
| Subject: Extensive solids entering the chlorine contact chamber. | | |

| NMED/SWQB<br>Official Photograph Log<br>Photo # 6 | | |
|---|---|---|
| Photographer: B. Cooney | Date: May 12, 2015 | Time: 13:24 Hours |
| City/County: Bloomfield / San Juan County | | State: New Mexico |
| Location: Bloomfield Wastewater Treatment Plant | | |
| Subject: Newly installed screens are collecting the floating solid before they exit the chlorine contact chamber. This screening is improving the effluent quality. | | |